

**Module 4: 'The 'so what?' of climate change'
(Climate Change Impacts)**

Year 2 - Scheme of Work

Overview: This Module focuses on biodiversity impacts of climate change for Year 2 using a Literacy theme. It helps children to locate and investigate information in resource books and on the internet about blue whales in particular, and record this information in note form then transferring to factual writing in paragraphs. The overall outcome is for children to produce an information text. Children will also use atlases to locate where the animal lives and where it migrates during the winter. They will explore what the main animals' food source is and how fluctuations in sea temperatures linked to climate change has led to diminishing quantities of krill. The Module finishes by revisiting the children's understanding about energy (both renewable and non-renewable) and helps them to make pledges to reduce their energy use and carbon footprints at home and at school (*see also Year 2 SoW Module 5*).

Most children will: be able understand the layout of information in a factual book; make key notes on information found; write a simple information text incorporating labelled pictures, diagrams and charts. They are able to suggest ways of reducing their carbon footprint.

Some children will not have made so much progress and will: recognise (with some help) that information books contain facts and understand the main layout of a book; make notes (with support) on information found and put the notes into sentences.

Some children will have progressed further and will also: be able to name the main features of the information book; write at least 2 paragraphs using key notes taken; incorporate information into various chart formats using the ICT program '2simple graph'. These children will also appreciate that blue whales are only one of many species whose existence is potentially threatened by climate change.

Learning Objectives	Cross Curricular & Other	Key Resources:
<p>To ask relevant questions about the blue whale and know where to find answers.</p> <p>To understand the layout of information books.</p> <p>To be able to use a contents page appropriately.</p> <p>To make key notes about information they have found.</p> <p>To write a simple information text incorporating labelled pictures, diagrams, charts.</p> <p>To express views about how to use resources more efficiently and how this links to climate change and Earth's biodiversity (e.g. blue whales, polar bears etc.)</p> <p>To recap about understanding about energy - What is energy? What are renewable or non-renewable energy sources? What can we do to save energy?</p>	<p>Speaking and listening – sharing ideas</p> <p>Geography: Cold areas of the World</p> <p>Science: common mammals</p> <p>Literacy – Explanation texts</p> <p>ICT – presenting and recording information in various ways.</p> <p>Vocabulary: Biodiversity Krill Climate change CO₂ Pollution Energy (Renewable & Non-renewable) Carbon footprints Greenhouse gases Habitat Atlantic & Arctic Oceans Environment Reduce/reuse/recycle (diagram, content, index, glossary)</p>	<p>Internet/ICT Glossary sheets Assorted craft material Images Book <i>The Big Blue Whale</i> by Nicola Davies and others about whales including fiction books <i>The Rainbow Fish</i> and <i>The Big Blue Whale</i> by J Alison James Pens/pencils/paper</p> <p>Overall Outcome: Children will understand the affects climate change has on Earth's biodiversity (using the blue whale as an example) and consider ways to use Earth's resources more efficiently.</p> <p>Assessment: Can children produce a clear information text? Do they demonstrate an understanding of what steps are required to produce the text? Do they understand the links between climate change and Earth's biodiversity?</p> <p>Unit Extension: Design a simple form that children can use to conduct a survey of what is recycled in their homes and graph the class survey results (e.g. how many different things are recycled, such as spectacles, mobile phones, unwanted clothes etc.) Discuss the results with the children. If appropriate share recycling findings with rest of school and/or parents through newsletter or assembly....to inspire others!</p>



Learning Objectives	I can statements	Suggested Activities	Extension	Outcomes	Resources and web links
(1) Identifying what a question is and that it needs to be answered					
To ask relevant questions about the blue whale and know where to find answers.	I can think of questions that I want to find answers to.	Watch video of big blue whale. Tell children that they will be reading some information texts about whales and making their own information book. What do they want to know about the blue whale? Write some questions together they may wish to find the answers to. Ask the children where they might look to find the answers? e.g. books, internet.	Children to write down some of their own questions to be answered next lesson.	Children will consider questions that they would like to find out more about.	A4 paper Pens/pencils Internet: www.arkive.org/blue-whale/balaenoptera-musculus/info.html www.arkive.org/blue-whale/balaenoptera-musculus/video-00.html
(2) Gathering information and answers to chosen questions to compare using a contents page					
To understand the layout of information books. To be able to use a contents page appropriately.	I can understand the layout of an information text. I can locate specific information using a contents page.	Look at the contents page from big book <i>The Big Blue Whale</i> . Does it have one? Why not? Show a contents page from another non-fiction book. Explain how we can use a contents page to locate information. Worksheet activity (<i>teacher to create using questions from previous activity</i>): All children to complete a worksheet by looking up key information about a blue whale to answer their questions from previous activity. Teacher to support less able children with reading of the activity sheet.	Information books may also contain an index and a glossary. Does <i>The Big Blue Whale</i> have one? Look and discuss their uses/importance. Homework – children to research extra info on the big blue whale to add to the class booklet including pictures/photographs using ICT/books. Also children to bring in different ‘blue’ materials from home to reuse in making forthcoming class whale collage.	Children will identify non-fiction features and locate relevant information in a book. Children will gain confidence in knowing how to understand and use a contents page.	Book <i>The Big Blue Whale</i> by Nicola Davies Pencils Worksheet

(3) Facts, interpretation and viewpoints					
<p>To make key notes about information they have found.</p>	<p>I can make notes on information that I have located.</p>	<p>Read <i>The Big Blue Whale</i> and discuss difficult vocabulary. Ask children comprehension questions: Have we answered any of the questions we asked about a blue whale? Continue to close read. Gaining information. Paired talk. Ask children to tell each other what they have found out. What could the contents page be? Continue to read <i>The Big Blue Whale</i>.</p> <p>Demonstrate how to write notes to answer questions. Demonstrate answering the questions in the style of an information book and using joining words and varying sentence starts. Shared class success criteria for information writing.</p> <p>Children to work with a partner and choose a sub-heading from their list of questions (activity 1) to research using books/ICT. Introduce the term 'biodiversity' (the variety of living things) and ask children to also include a sub-heading based upon how the blue whale is affected by climate change.</p> <p>(WALT: answering in note form) Children to remember to answer using key information. Children to continue answering questions but in note form. Teacher to support more able children. TA to support less able children with writing in key note form.</p>	<p>Review with class climate change terminology</p> <p>Review as whole class website www.greenpeace.org.uk/blog/climate/melting-ice-threatens-blue-whales-food-supply discuss in more detail how blue whales are being affected by climate change.</p> <p>Ask children to take notes and add into their sub-heading on climate change and blue whales. (Advise that soon they will be looking at this sub-heading more closely to find ways to help protect blue whales from climate change).</p>	<p>Children will work in teams/pairs to investigate answers to questions and summarise the information in key notes.</p>	<p>Book <i>The Big Blue Whale</i> by Nicola Davies Variety of big books about whales</p> <p>Pencils/paper</p> <p>Research various websites including facts sheets: http://animals.nationalgeographic.com/animals/mammals/blue-whale.html</p> <p>www.enchantedlearning.com/subjects/whales/species/Bluewhale.shtml</p> <p>Website for looking at how blue whales are affected by climate change: www.greenpeace.org.uk/blog/climate/melting-ice-threatens-blue-whales-food-supply</p>
(4) Producing an information text					
<p>To write a simple information text incorporating labelled pictures, diagrams, charts.</p>	<p>I can write a simple information text incorporating labelled pictures, diagrams and</p>	<p>Review note taking from previous activity.</p> <p>Show children an example of an information 'booklet'/'leaflet' and tell them that they are now going to make their own type of booklet about the</p>	<p>Check writing against success criteria.</p> <p>Peer assessment to select most clear</p>	<p>Children will identify what is the most important information to convey to an</p>	<p>Pencils/coloured pencils Paper (can use 1 side for written information and other side for picture/diagram)</p>



	charts.	blue whale. To get them started, select a child's notes and demonstrate putting into a paragraph selecting the relevant/main points. WALT – ask children in pairs/teams to write a simple information text. They can type/write a paragraph under chosen sub-heading including success criteria e.g. key words, relevant information/facts. Children can also paste in pictures/draw labelled diagrams. More able children may also want to incorporate charts.	information texts. Collate class info into a whole class information booklet and choose competent children to add contents page, page numbers, index and glossary. Display on wall.	audience. Children will also describe why the information is important to convey to an audience.	Computer
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(5) Linking Earth's biodiversity and climate change – how can we make a difference?

<p>To express views about how to use resources more efficiently and how this links to climate change and Earth's biodiversity (e.g. blue whales, polar bears etc.)</p> <p>To recap about understanding about energy - What is energy? What are renewable or non-renewable energy sources? What can we do to save energy?</p>	<p>I can understand the links between wasting Earth's resources, climate change and protecting Earth's biodiversity.</p> <p>I can understand what energy is, where it comes from and ways of saving energy.</p>	<p>Review class information booklet about the blue whale. Recap specifically how the blue whale is affected by climate change.</p> <p>Discuss with children ways we can help to use Earth's resources more carefully and reduce our carbon footprint (review vocabulary). Recap renewable and non renewable energy (<i>see also Year 2 SoW Module 5</i>).</p> <p>Use the internet (e.g. Carbon Trust) to research ways of using energy more efficiently/different ways of reducing energy. Ask children to come up with their own ideas and collate into a class spider diagram.</p> <p>As a class, come up with a tip of the week (which will be continued every week) to incorporate into everyday school life and at home. Ask children to also discuss these 'tips of the week' with parents and get them involved, too.</p>	<p>Children to research other animals affected by climate change in their next ICT lesson e.g. polar bears and the effects of melting ice caps.</p> <p>Design a simple form that children can use to conduct a survey of what is recycled in their homes and graph the class survey results (e.g. how many different things are recycled, such as spectacles, mobile phones, unwanted clothes etc.) Discuss the results with the children. If appropriate</p>	<p>Children will be able to suggest ideas about how to reduce their own carbon footprint to help save the blue whale and other animals affected by climate change.</p> <p>Children will feel confident in describing positive action to others including their parents, carers, family and friends.</p>	<p>Paper/pens/pencils</p> <p>Energy images (renewable & non-renewable)</p> <p>Internet e.g. www.carbontrust.co.uk/cut-carbon-reduce-costs/reasons/why-save-carbon/pages/getting-started.aspx</p> <p>Associated craft materials e.g. reused/recycled from home/school such as out of date posters, magazines, fabric scraps etc for collage, end of wallpaper rolls to use for background (or sugar paper/similar) – try to get</p>
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		Summary activity of Module 4 SoW: Explain to children that we are going to make a class collage about the blue whale by reusing different materials from home and school. Used bottle tops for eyes, foam for tail etc.	share recycling findings with rest of school and/or parents through newsletter or assembly....to inspire others!		as much BLUE material as possible
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